

parenchyma of the body, in which some dilatations of the longitudinal vessel are placed. The arrows in the alimentary cavity indicate the direction of the chyme-current, as in all other figures where they are introduced.

Fig. 10. *Euplotes Charon*, seen from the ventral surface.

Fig. 11. Diagrammatic section of a *Paramecium*. Externally is the skin bearing the cilia; then the parenchyma of the body, containing the two contractile vesicles and enclosing the digestive cavity. Behind the mouth is the anus.

Fig. 12. *Amphileptus fasciola*.

Fig. 13. *Enchelys farcimen*, containing a small Infusorium which it has devoured; the animal itself is being sucked out by

Fig. 14. A small *Acineta ferrum-equinum*, Ehrbg. This is pale in consequence of long fasting, so that the horseshoe-shaped nucleus is recognized. After feeding, it acquires the dark appearance of fig. 15.

XX. Descriptions of new Ceylon Coleoptera.

By JOHN NIETNER, Colombo, Ceylon*.

Family CARABIDÆ.

Tribe CHLÆNIDÆ.

1. *Chlænium Ceylanicus*, N.

C. subellipticus, subconvexus, glaberrimus, nitidus; supra brunneo-æneus, capite, thoracis elytrorumque marginibus aureo-viridibus; subtus piceus, margine, pedibus oreque dilute castaneis. Long. corp. $5\frac{3}{4}$ lin.

Caput ante oculos 2-impressum. Antennæ art. 3^o quarto paulo longiore. Mentum dente magno excavato. Thorax subquadratus, latitudine parum longior, obsolete punctulatus, antice subconvexus, lateribus deflexus, postice depressus, planus, 2-impressus. Elytra subtiliter striato-punctata, obsoletissime punctulata.

In stagnorum ripis inter arundines habitat; in prov. occid. et merid. infrequenter legi. Per occasionem nocte ad lumen advolat.

A handsome and interesting species, distinguished as well by its general shape, which is more elliptic and convex than usual, as by its polished surface. The head is oblong and, with the exception of the mouth, the parts of which are of a deep brown, of a bright metallic green, divided longitudinally by a streak of copper colour. The thorax is rather longer than broad, round in front and flat behind, and finely punctured all over; it is of a brownish metallic colour bordered laterally with bright green. The elytra are of the same colour as the thorax, the same bright green stripe running along the sides; the margin, properly speaking, is deep brown; the elytra are impressed with rows of fine indistinct punctures, and with the usual series of larger setigerous

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ones within the margin; they are rather narrowed near the apex.

The female, in addition to having the anterior tarsi not dilated, has the basal impression of the thorax of a somewhat semicircular shape, and is broader in the body than the male.

2. *Chlœnius 5-maculatus*, N.

C. præcedente major, minus convexus, latior, rugosus, pubescens, supra obscure nigro-viridis; capite viridi-æneo, nitente, glabro, elytris maculis 5 flavis; subtus piceus, pedibus, elytrorum margine antennisque flavis, ore thoracisque margine magis minusve brunneis. Long. corp. 6½ lin.

Caput ante oculos leviter 2-impressum, punctulatum. Antennæ art. 3^o quarto plus sesqui longiore. Thorax subquadrato-rotundatus, latitudine haud brevior, dorso planus, ad basin 2-impressus, rugosus, pilosus. Elytra subdepressa, subtiliter striata, rugosa, pilosa, maculis 2 humeralibus, 2 intermediis, 1 apicali flavis ornata.

Specimen singulum m. in lacus Colombensis ripis sub graminibus putrescentibus legi.

Not less distinguished than the former, especially by the rounded shape of the thorax and the five yellowish spots with which the elytra are adorned. These are arranged in the following manner: two small ones at the shoulders; two large transverse ones at the middle, stretching from the external margin towards the suture, reaching, however, but little more than half-way across; one at the apex: this is of the shape of a hammer, and half in one and half in the other elytron. The palpi appear to me longer and more markedly elbowed at the joints than is usual with insects of this genus; the last joint is deeply excavated at the tip. The thorax is of suborbicular form, the back and hind part are flat, the sides slightly depressed, the margin sharp, the basal impressions very near the angles; it is, as are also the elytra, rough and finely pubescent, the striæ of the latter being thereby rendered obsolete. Legs of male stout, anterior tarsi strongly dilated.

3. *Chlœnius pulcher*, N.

C. elongatus, subconvexus, subglabratus, æneo-viridis, elytris obscurioribus, limbo pedibusque flavis, subtus piceus. Long. corp. 6¾ lin.

Caput oblongum, nitidissimum, ante oculos 2-impressum. Mentum dente fortiter excavato. Antennæ art. 3^o quarto sesqui longiore. Thorax oblongus, basin versus angustatus, parce punctulatus, antice lateribus deflexus, postice dorsoque planus, basi 2-impressus. Elytra striata, ad strias, præcipue apicem versus, subtilissime pilosa, flavo-marginata. Pedes flavi, spiuulis castaneis. Abdomen flavo-marginatum.

Specimen singulum m. in ripis Maha-Oyæ fluminis prope Negombo cepi.

Distinguished by its elongate shape. The head is of a bright green colour, with the labrum and the mandibles of a deep, and the antennæ and palpi of a light brown, the latter being darkened towards the end. The thorax is of the same colour as the head, reflecting a copper hue from the back; its anterior angles are obtuse, the basal ones being right. The elytra are of the same greenish copper colour, but darker; they are impressed with longitudinal lines, which are bordered on each side by a row of minute hairs; they as well as the abdomen have a yellowish margin.

4. *Chlenius cupricollis*, N.

C. subconvexus, subglabratus, capite thoraceque cupreis, elytris nigro-æneis, limbo pedibusque flavis, subtus piceus. Long. corp. m. $5\frac{3}{4}$, f. $6\frac{1}{4}$ lin.

Præcedenti affinis. Caput ante oculos indistincte 2-impressum. Thorax ut in præcedente sed minor, antice lateribus magis deflexus, linea media impressionibusque basalibus longitudinalibus, præcipue in f. profundioribus. Pedes flavi, trochanteribus spinulisque castaneis. Elytra præcedentis.

In prov. occid. fluminum lacuumque ripis infrequenter legi.

Allied to the former, but easily distinguished by size, colour, and sculpture of the thorax. The male is shorter and the female plumper than the former. The thorax is smaller and, as is also the head, of a bright copper colour with greenish sides; its impressions, especially in the female, are deeper, and its anterior part laterally more deflexed. Moreover the yellowish margin of the abdomen is wanting, and the tooth of the mentum is not excavated. The elytra, antennæ and palpi, making allowances for size, &c., are the same as those of the former.

5. *Chlenius rugulosus*, N.

C. subconvexus, subglabratus, thorace occipiteque rugulosis cupreis, elytris nigro-viridibus, pedibus, elytrorum limbo lunulisque apicalibus flavis, subtus piceus, abdomine apice margineque flavis. Long. corp. $6\frac{1}{4}$ lin.

Caput fronte 2-impressum, subtilissime longitudinaliter rugulosum. Mentum dens laciniis extus rotundatis. Thorax lateribus rotundatus, deflexus, basi sat fortiter angustatus, obsolete 2-impressus, parce punctatus, subtiliter transversim rugulosus. Elytra ut in præcedente sed apice utrinque lunula flava signata, ad strias distinctius pilosa, his apicem versus per paria coeuntibus. Pectus abdomenque picea, hujus segmentis 2 ultimis, præcedentis dimidio margineque flavis.

Specimen unicum f. in *Ch. pulchri*, N. societate cepi.

Of the general appearance of the two preceding species. The head finely longitudinally, the thorax transversely rugose; the latter with rounded and deflexed sides. The mandibles are of a deep brown; the palpi and antennæ of a yellowish colour, darkened towards the tip. The lobes of the mentum tooth are externally rounded. The elytra are marked by two subapical spots of yellowish colour and semilunar shape (the back of the lunules being turned towards the suture). The striæ verge near the apex by twos into each other. The abdomen is distinguished by having a yellow margin and apex.

Tribe SCARITIDÆ.

6. *Scarites minor*, N.

S. elongatus, niger, nitidus, subtus nigro-piceus, pedibus piceis, tarsis, antennis, palpisque castaneis. Long. corp. 5 lin., lat. $1\frac{1}{2}$ lin.

Caput subquadratum, ante oculos 2-impressum, pone irregulariter sulcatulum. Mentum rugosum, medio costatum, lateribus utrinque profunde uni-sulcatum, lobis obtusis, dente forti, lobis paulo brevioribus. Maxillæ validæ, breves, apice extus leviter arcuatæ et excavatæ, subacuminatæ. Mandibulæ validæ, inter medium et basin fortiter dilatatæ, obtuse dentatæ, dextera dente obtuso subapicali, supra subtusque longitudinaliter sulcatæ. Antennæ art. 1^o sequentium trium, 2^o tertii prope longitudine. Thorax oblongo-quadratus, angulis anterioribus obtusis, posterioribus oblique truncatis, anguste marginatus. Elytra thoracis capitisque prope longitudine, striata, ante medium ad striam 2^m uni-, apicem versus ad striam 3^m 2-punctata, punctis piliferis, basi granulata, angulis oblique truncatis, anguste marginata. Pedes anteriores tibiis apice extus 5-dentatis, dentibus 2 ultimis parvis, omnes tarsi subtus leviter excavatis.

In prov. occid. arenis humidis sub vegetabilibus putrescentibus specimina nonnulla legi.

Scarce. But little distinguished excepting by its size, for which reason a lengthened description becomes necessary. The head is subquadrate in front, with two deep longitudinal impressions behind the eyes, finely sulcated. The labrum is of the usual shape; the eyes are not very prominent. The antennæ are of about the same length as the head; the first joint is about as long as the three following together; the second, which is generally longer than the third, is in this case of the same length; joints 1-4 are naked, 5-11 pilose, increasing gradually towards the tip in size and thickness, taking at the same time a subquadrate and depressed shape. The mandibles are strong, much dilated, and dentated from before the middle to the base, the right one having an additional subapical tooth. The maxillæ also are strong, but slightly bent at the apex, where they are also slightly excavated. The labial palpi have the last joint longer

than the third, elongated and elliptic. The thorax is oblong, with the basal angles obliquely truncated. The elytra are oval, striated, granulated at the base, and have, as has also the thorax, a narrow margin. The anterior tibiæ are furnished externally with five teeth, the two last of which, however, are very small; the posterior legs are similarly provided, but the teeth are indistinct. The joints of the tarsi are slightly excavated below. The sides of the body below are rugose.

7. *Clivina rugosifrons*, N.

C. ferruginea, capite thorace abdomineque piceis. Long. corp. $4\frac{1}{2}$ lin., lat. $1\frac{1}{2}$ lin.

Caput rugosum, inter oculos elevatum, elevatione plana antice profunde 1-imprensa. Mentum lobis subtiliter sulcatis. Antennæ robustæ, thoracis medium vix attingentes, art. ultimo elongato, penultimo —, art. 2° tertio sesqui longiore. Thorax subquadratus, antice parum angustatus, elytrorum latitudine, subtus parce punctatus, prosterno sulcato. Elytra striata, in striis punctata. Pedum tibiis anterioribus apice extus 4-dentatis, subtus excavatis, tibiis reliquis fortiter spinosis; tarsorum articulis margine apicali setoso.

In prov. occid. sub vegetabilibus putrescentibus infrequentissime legi.

A large and distinguished species. The head is very rugose; the clypeus is contracted behind the apical angles and then produced again into another pair of angles. The labrum is transverse, slightly sinuate in front, with the angles rounded and setose. The mentum is quadrate, the lobes rounded at the apex and slightly sulcated; the tooth is strong, of equal length with the lobes, and of the typical spear-headed form. The ligula has the apical angle much elongated, terminating in a membranaceous bristle which is bifurcate at the tip. The maxillary palpi have the last joint elongate, cylindrico-conic; that of the labial ones is still more elongate, elliptic. The antennæ have the basal joints elongate, those towards the tip rounded; they and the legs are hairy, otherwise the insect is of a bright, polished surface.

8. *Clivina elongatula*, N.

C. elongata, subdepressa, supra nigro-picea, subtus picea, pedibus elytrorumque marginibus castaneis, antennis oreque dilutioribus. Long. corp. vix 3 lin., lat. $\frac{3}{4}$ lin.

Caput triangulare, subtiliter punctato-rugosum. Palpi articulo ultimo apice leviter truncato. Thorax oblonge quadratus, ante apicem leviter sinuosus, parce obsoleteque transversim strigosus. Elytra striata, in striis punctata, ad striam 3^m utrinque 4-punctata. Subtus parce punctata.

Ubi præcedens specimen singulum legi.

I have not dissected the labium of this species, which, however, is at once recognized by its depressed and, in proportion to its width, very long shape. The labrum, antennæ and legs are so much like those of the former that they need no further description. The bristle of the ligula appears simple.

9. *Clivina maculata*, N.

C. picea, elytris ferrugineis infra medium macula nigra indistincte ornatis, pedibus intermed. et post. oreque brunneo-testaceis, pedibus ant. antennisque obscurioribus. Long. corp. 2 lin.

Caput oblonge quadratum, rugosum, costis 5 magis minusve interruptis, ad marginem anteriorem dentibus 4 productis munitum. Palpi art. ultimo basi intus incrassato. Antennæ art. 2-3 subæqualibus. Thorax subquadratus, leviter rotundatus. Elytra striata, in striis profunde punctata.

Ubi præcedentes specimen singulum legi.

As distinguished as the two preceding species. The palpi and the mentum appear to me of a somewhat extraordinary form. The last joint of the former is considerably more inflated at the base than in any other Ceylon species that has hitherto come under my notice, whilst the others are of a very curved appearance in both the maxillary and labial palpi. The emargination of the mentum would at first sight appear to be of semilunar shape; however, it is only the lower margin which has this form, the oblique truncature which forms the emargination being such as to give it that shape. The tooth is but of the typical shape, standing on a level with the lower margin; it stands at a small angle with respect to the inclined plane formed by the rest of the truncature. The apical angles of the lobes are somewhat pyramidal, being formed by three sides. I have not dissected the labium, and therefore do not know whether the remaining parts exhibit any peculiarities. The insect is, however, easily distinguished by its general facies, which is rather like that of a *Dyschirius*, from which genus, however, the mentum alone is sufficient to separate it. I may as well remark here, that, although the island is well supplied with Scarites and Clivinas, I have hitherto not discovered a single *Dyschirius*, a genus so well represented in Europe. Of the three Clivinas just described, single specimens only have been in my possession for a considerable time. There are three or four more species met with about Colombo, but these being of common occurrence, I abstain from describing them here, as they may possibly be amongst those described by Putzeys or others from the Indian continent.

Family RHIPIPHORIDES.

10. *Rhipiphorus tropicus*, N.

R. niger, nitidus, elytris albidis, nigro-maculatis, labro, palpis, antennis (pectine nigrescente excepto), unguibusque brunneis, impresso-punctatus, punctis magnis sed non profundis, subtus suborbicularibus piliferis, supra oblongis, lævibus. Long. corp. $2\frac{1}{3}$ lin., lat. ad humeros $\frac{3}{4}$ lin.

Caput oblongum, latitudine paulo longius, parte frontis inferiore dense profundeque punctata, vertice obtuse obconico, glabro, nitidissimo, occipite piloso. Thorax elevatus, ad basin 2-impressus, medio angulo obtuso, apice excavato, glabro, inter elytra producto. Elytra ad suturam utrinque stria lata brunnea punctata impressa, acuminata, apice dehiscentia, albida vel subhyalina, apicibus, medio utrinque et ad basin nigro-maculata. Alæ apice fuscæ. Pedes tarsis anticis art. 2-4 unguibusque bifidis, omnibus brunneis, tarsis subtus setosis, anticis, art. 2-3 primoque apice, subtiliter sericeo-penicillatis.

Specimen singulum m. prope Colombo in floribus legi. De metamorphosi adhuc nihil constat.

The head is rather long in proportion to its width; the occiput is narrowed, short obconic. The hind part of the thorax is elevated above the elytra; the central part of its base is prolonged between the elytra in an obtuse angle, the apex of which is abruptly truncated, excavated and polished. The labrum is hairy, and the ungues of the tarsi bifid as usual.

The tibiæ of the anterior legs are furnished at the apex with one, those of the four posterior legs with two spurs. The anterior tarsi have joints 2-4 brown. The tarsi are setose below joints 2-3, the apex of the first of the anterior ones wearing fine yellowish silky brushes instead.

All over the island the Rhipiphorides and Mordellina appear to be very scarce, with the exception of one or two species of *Anaspis*, which are not seldom taken in flowers. Still I recollect having met with about seven species, including two large Mordellas, which, however, I have not been fortunate enough to catch as yet.

Family STAPHYLINIDÆ.

Tribe PINOPHILINI.

11. *Edichirus alatus*, N.

E. alatus, setosus, nitidus, rufo-testaceus, thorace dilutiore, capite, elytris abdominisque segmentis 3 ultimis nigris; elytris apice 2-maculatis, maculis rufo-testaceis; pedibus flavis, femoribus apice tibiisque basi nigrescentibus; antennis palpisque maxill. basi obscuris, apice testaceis, reliquis oris partibus rufo-piceis. Long. corp. $3\frac{1}{8}$ lin.

Æ. Pæderino Erichs. simillimus, præter colorum distributionem differt tamen *alis*, elytrorum sculptura, antennarumque articulo ultimo. Antennæ art. ultimo penultimo æquali nisi paulo minore, apice fortiter *truncato* leviterque excavato. Thorax *Æ. Pæderini*, dorso punctis biseriatis impressus, serie interna vel centrali elliptica punctis minoribus magis inter se approximatis, externa vel submarginali punctis magnis distantibus. Elytra oblonge subquadrata, infra medium rotundata, thorace *longiora* et fere duplo ampliora (utrumque elytron thoracis fere magnitudine), basi parte thoracis adjacentem *duplo*—infra medium illius latitudine antica plus tertia parte latiora. Os, pedes et abdomen *Æ. Pæderini*.

Pæderorum more victitare videtur; in eorum societate in lacus Colombensis ripis infrequentissime legi; illis minus gracilis atque minus agilis.

I have not had an opportunity of examining specimens of either of the three *Ædichiri* hitherto described. However, I have before me Erichson's figure and description of the Sicilian *Æ. Pæderinus*, with which I find my species strongly to agree.

It differs, however, from it materially in the following three points, viz. the wings, the sculpture of the wing-covers, and the last antennal joint. The fact that this species has wings would render an alteration in Erichson's diagnosis of the genus necessary, it being characterized by him as apterous. The elytra are not so much contracted and rounded at the base, and, being longer than the thorax, have therefore a more oblong, subquadrate appearance; as in the above typical species, they are, however, rounded at the sides and broadest a little below the middle; they are about twice as broad at the base as the adjoining part of the thorax, and in their broadest part rather more than a third wider than the broadest part of the thorax. The third point in which the two species differ is the last joint of the antennæ, which in this case is strongly truncated at the tip and slightly excavated. They are further distinguished by the distribution of the colours: my species being of dark yellowish red, thorax lighter; head, elytra, and three last abdominal segments black; elytra with two reddish spots at the apex; legs yellowish, at the apex of the femora and base of the tibiæ blackish; the mouth is brown; the maxillary palpi yellowish, with the three first joints dark at the base; the antennæ have the six basal joints dark excepting at the apex, where they, as well as the five remaining ones, are yellowish. In all other points I find the insect to agree entirely with the typical *Æ. Pæderinus*: the palpi, legs, and anal segment of the abdomen are of the same structure; the hairy vestiture is exactly the same in the different parts of the body of my species as it is in the corresponding ones of Erichson's.

It is perhaps wrong in me to describe an isolated species of

this extensive and difficult family. However, the genus *Ædichirus* is one so extraordinary, that I am sure it will be noticed wherever the description of a new species of it may be found, be it by itself or amongst those of other Staphylinidæ. The case would be different if the object of the description were a *Homalota* or the like.

PROCEEDINGS OF LEARNED SOCIETIES.

ROYAL SOCIETY.

December 18, 1856.—The Lord Wrottesley, President, in the Chair.

“On the Scelidothere (*Scelidotherium leptocephalum*, Owen), a large extinct Terrestrial Sloth.” By Professor R. Owen, F.R.S.

The extinct species of large terrestrial Sloth, indicated by the above name, was first made known by portions of its fossil skeleton having been discovered by Charles Darwin, Esq., F.R.S., at Punta Alta, Northern Patagonia. These portions were described by the author in the Appendix to the ‘Natural History of the Voyage of H.M.S. Beagle.’

The subsequent acquisition by the British Museum of the collection of Fossil Mammalia brought from Buenos Ayres by M. Bravard, has given further evidence of the generic distinction of the Scelidothere, and has supplied important characters of the osseous system, and especially of the skull, which the fragments from the hard consolidated gravel of Punta Alta did not afford.

The best portion of the cranium from that locality wanted the facial part anterior to the orbit, and the greater part of the upper walls; sufficient however remained to indicate the peculiar character of its slender proportions, and hence Professor Owen has been led to select the name *leptocephalum* for the species, which is undoubtedly new.

The aptness of the epithet ‘slender-headed’ is proved by the author’s researches to be greater than could have been surmised from the original fossil; for the entire skull, now in the British Museum, exhibits a curious and very peculiar prolongation of the upper and lower jaws, and a slenderness of the parts produced anterior to the dental series, unique in the leaf-eating section of the order *Bruta*, and offering a very interesting approximation to the peculiar proportions of the skull in the Ant-eaters.

The original fossils from Patagonia indicated that they belonged to an individual of immature age: the difference of size between them and the corresponding parts in the British Museum, depends on the latter having belonged to full-grown individuals: the slight difference in the shape of the anterior molars seems in like manner to be due